

PROTECTION DEVICE WITH LOCKOUT TEST

ABSTRACT OF THE INVENTION

The present invention is directed to a protective device that includes a plurality of line terminals configured to be connected to an electrical distribution system, and a plurality of load terminals configured to be connected to at least one load. The device includes a fault detection circuit coupled to the plurality of line terminals and the plurality of load terminals. The fault detection circuit is configured to detect at least one fault condition. A power interruption circuit coupled to the fault detection circuit, the power interruption circuit including a set of movable contacts configured to decouple the plurality of line terminals from the plurality of load terminals in response to the fault detection circuit detecting the at least one fault condition. A reset mechanism is coupled to the power interruption circuit and configured to actuate the movable contacts to re-couple the plurality of line terminals to the plurality of load terminals. A lock-out mechanism is coupled to the reset mechanism. The lockout mechanism is configured to disable the reset mechanism in a lock-out state. A test circuit is coupled to the fault detection circuit and the lock-out mechanism. The test circuit is configured to provide a simulated fault signal to the fault detection circuit. The test circuit is configured to drive the lock-out mechanism from an unlocked state to the lock-out state if the fault detection circuit and/or power interruption circuit fails to respond to the simulated fault signal within a predetermined period of time.